# BRAUND Galaxy

**Model No. 12539 (With Amplifier)**
**Model No. 12538 (Less Amplifier)**

# INSTALLATION INSTRUCTIONS

## ALL CHANNEL RV ANTENNA FOR B/W & COLOR TV

**CAUTION: During installation and use of the Galaxy Antenna, make sure legs or head cannot accidentally come into contact with any power line. CONTACT WITH POWER LINES COULD RESULT IN SERIOUS INJURY OR DEATH.**

### CHECK CONTENTS OF CARTON

| QUANTITY | DESCRIPTION | PART NO. |
|---|---|---|
| 1 | Base and leg assy. | 12930 |
| 1 | Travel support | 11698 |
| 1 | Lead-in plate | 10579 |
| 2 | Lead-in gaskets | 10580 |
| 1 | Crank Handle | 12611 |
| 1 | Ceiling Plate | 10302 |
| 2 | Pieces "Velcro" | 12600<br>12601 |
| 3 | Rivets | 80394 |
| 3 | Cable Clips | 10323 |
| 1 | Hex. key | 80600 |
| 18 | Screws 6 x 3/4 | 81000 |
| 3 | Screws 4 x 3/8 | 81007 |
| 3 | Screws 8 x 3/8 | 81001 |
| 2 | Screws 10 x 3/4 | 81008 |

**—PLUS—**

**Model No. 12539 (Amplifier)**

| | | |
|---|---|---|
| 1 | Antenna Head Assy. | 12585 |
| 1 | Wall Jack 12 volt. | 12640 |

**Model No. 12538 (No Amplifier)**

| | | |
|---|---|---|
| 1 | Antenna Head | 12581 |
| 1 | Wall Jack | 12637 |

### TOOLS REQUIRED

Electric hand drill
Long drill (1/2" drill)
1/8" Drill, 3/32 Drill, 5/32 Drill
Screwdrivers (Phillips & straight)
Hacksaw
Caulking compound (Vulkem or similar)

"Pop" rivet gun & 1/8" pop rivets may be used instead of screws to secure base to roof if roof material is strong enough.

Before commencing installation, the antenna head must be assembled to the three support legs as follows:

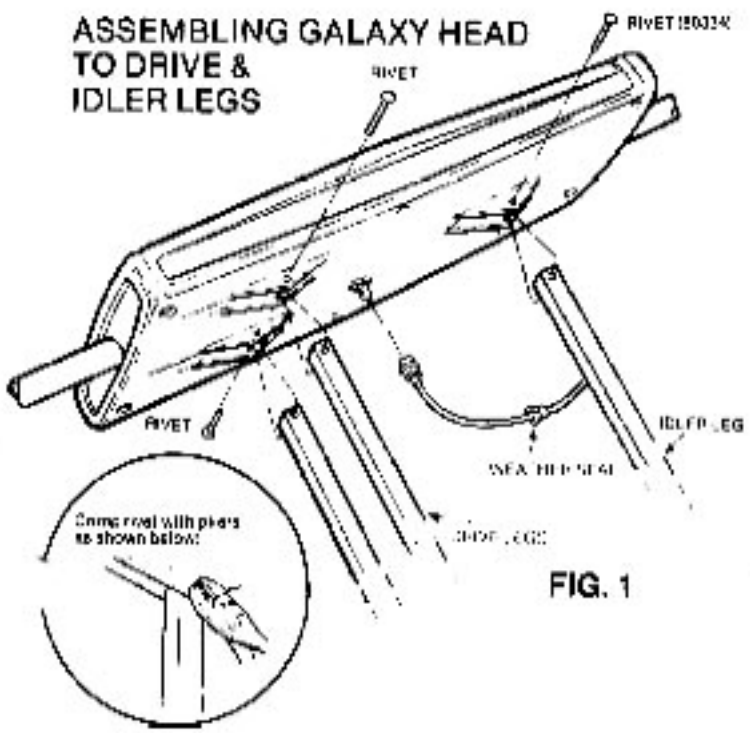



FIG. 1

1. Temporarily fit crank handle to drive shaft and crank legs up to almost fully raised position.
2. Line up antenna head with idler leg first and insert rivet. . Crimp hollow end of rivet with pliers.
3. Line up drive legs and secure same way with remaining two rivets.
4. Carefully insert center wire of co-ax connector of cable into the co-ax receptacle on antenna head and screw firmly together.
5. Push "rubber" weather seal over connector as far as it will go.

Note that the overall length of the Galaxy antenna in the lowered position is 66-1/2".

Carefully follow the installation instructions in the following pages.

# INSTALLATION INSTRUCTIONS

Select a position on the RV roof that will allow the Galaxy to (a) lay horizontally at rest, (b) raise fully and rotate fully (approx.360 degs.) without disturbing other roof top equipment such as vents, air conditioner etc.
The turning radius of the base unit is approx. 7 inches and clearance for the lead-in cable during rotation is required (see page 3, FIG. 7.)
It is recommended that the front edge (arrow) of the mounting plate (12660) overlaps a roof stud. Some roofs may require additional reinforcement. Do not drill through a roof stud for the drive shaft hole or the stud will be weakened.
Lead-in cable entry may be made through the refrigerator vent or through the roof above a closet using the lead-in plate (10579) and gaskets (10580) or the cable entry at the front end of the mounting plate (12660) (see page 5.)
When selecting the position bear in mind that there may be wiring in the roof.

1. USING TEMPLATE ON PAGE 6:
   Drill 1/2" hole through roof and ceiling. KEEP DRILL VERTICAL.
   Also drill lead-in cable hole if lead-in cable entry in mounting plate (12660) is to be used.

2. Crank your Galaxy to the down position and before proceeding, turn the mounting plate (12660) CLOCK-WISE (looking from the top) TO THE STOP. THIS IS IMPORTANT! Compare with FIG. 2

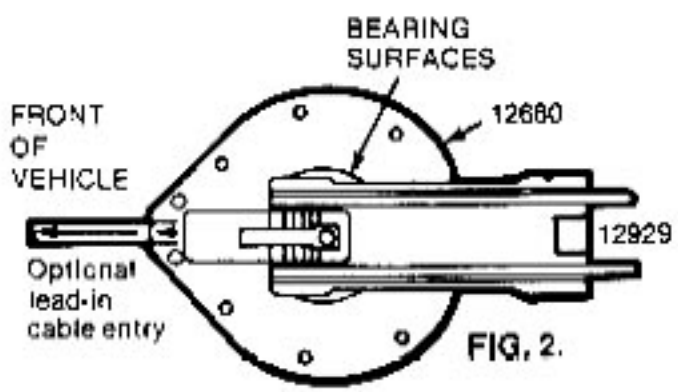


FIG. 2.

3. With crank handle removed place the drive shaft (12927) into roof hole so that the arrow on mounting plate is pointing toward front of RV as in FIG. 2.
4. Place travel support (11698) in or near position shown in FIG. 3. Drill 2 1/8" diameter holes in roof, caulk, and secure travel support with 2 No. 10 sheet metal screws. Remove paper from VELCRO* (12600) pad, and apply it to top of travel support. Remove paper from other VELCRO* pad (12601) and wrap it around antenna tube to mate with travel support VELCRO*

FIG. 3


5. From inside the RV, center the drive shaft in the ceiling hole. Keeping shaft in center, fit the ceiling plate (10302) using three 4 x 3/8 screws (81007). See FIG. 4.

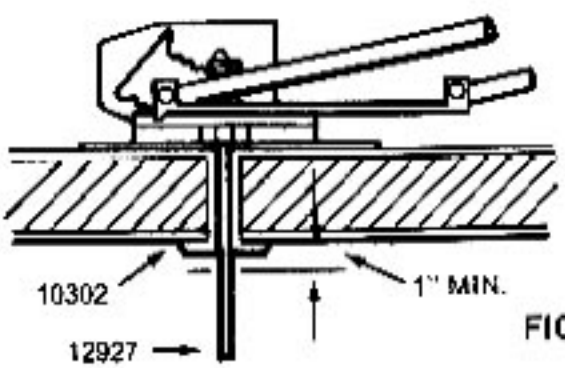


FIG. 4.

6. Mark and cut drive shaft to dimension shown in FIG. 4. and remove burr with file. Fit handle and mark position of set screw, then "dimple" shaft with a 3/16" drill or file groove in shaft so set screw will "bite".

7. If screws instead of "pop" rivets are to be used to secure antenna base to the roof, it will be necessary to enlarge the 14 holes in the base plate with a 5/32" drill.
8. When ready for fitting antenna to roof, caulk the underside of the mounting plate, paying particular attention to cable entry. Check that roof and ceiling holes are clear of insulation and then lower the unit into position. Check positioning (Para. 3, FIGS. 2 & 3) and drill 14 holes - 1/8" for "pop" rivets and 3/32" for screws. IF USING BASE PLATE CABLE ENTRY, FEED LEAD-IN CABLE THROUGH CABLE HOLE IN ROOF, LEAVING 36" OF CABLE "FREE" AS SHOWN DOTTED IN FIG. 7. CAULK WELL!
9. Push crank handle fully home on drive shaft and secure tightly using the Hex. key supplied.

**WARNING: Check for power lines before raising antenna. Do not travel with antenna in raised position.**

10. Raise the antenna by pulling the crank handle downwards and then turning it COUNTER CLOCKWISE - LOOKING UP AT CEILING, using the knob, as in FIG. 5.
11. IMPORTANT! When antenna is fully raised TURN THE CRANK HANDLE IN THE OPPOSITE DIRECTION for at least half a turn. THEN GRASP THE HANDLE AS IN FIG. 6 and push upward with a slight CLOCKWISE turning motion. This will engage the rotate pin (80405). FORCE SHOULD NOT be needed. Still holding the crank handle as in FIG. 6, rotate the antenna fully COUNTER-CLOCKWISE to the stop, then back CLOCKWISE again to the stop. If the installation has been correctly carried out Paras. 3 to 9 ), the antenna will now be "in line" and ready for lowering into the travel support (11698). PULL DOWN the crank handle to disengage the rotate pin; then using the knob, crank the handle CLOCKWISE (looking up to ceiling) until some resistance is felt. The Galaxy should now be nested in its travel support. NOTE AGAIN THAT NO FORCE IS REQUIRED if unit has been correctly installed. If unit does not work easily check procedures and for excess caulking, particularly around bearing surfaces (FIG. 2.)

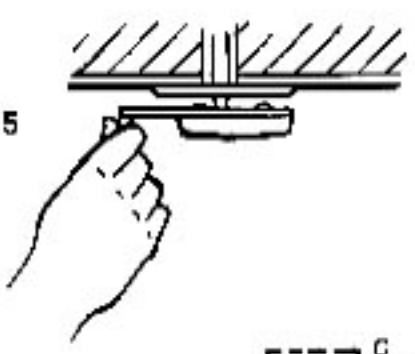


FIG. 5

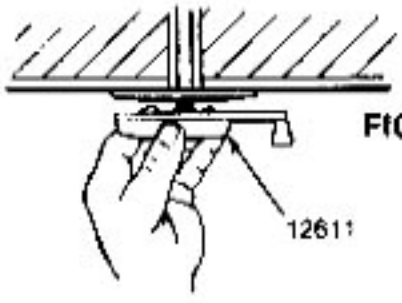
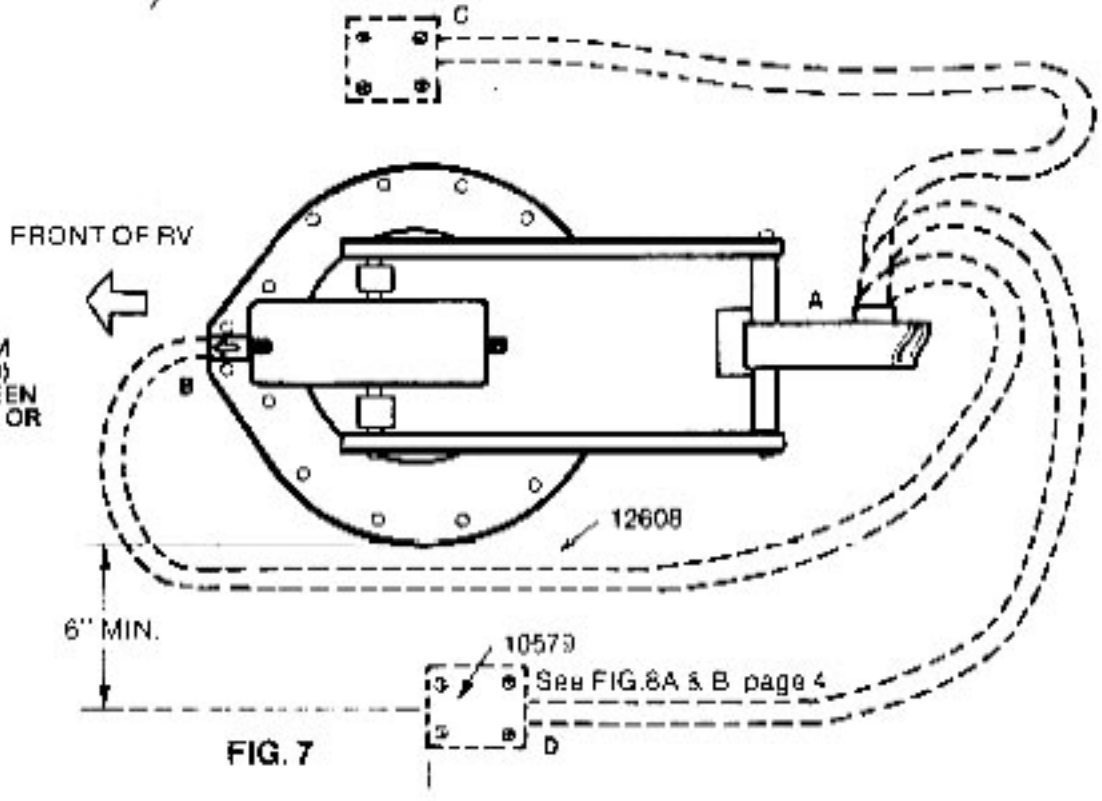



FIG. 6




NOTE: MINIMUM CABLE (DOTTED) LENGTH BETWEEN POINTS A-B, A-C OR A-D IS 36"

FIG. 7

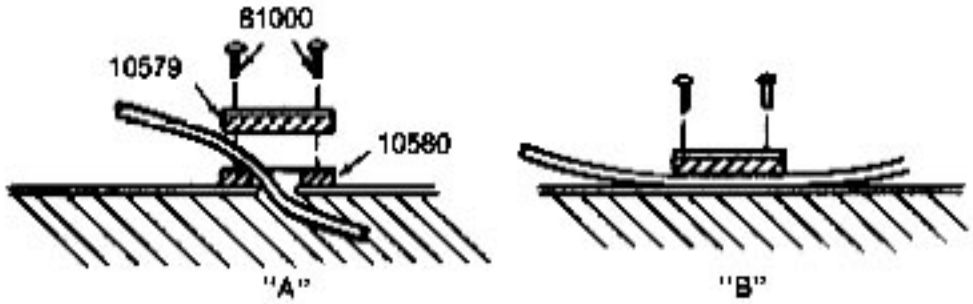



FIG. 8

12. Items 10579 and 10580 may be used as a weatherproof entry gland (FIG. 8A) or as a clamp (FIG. 8B). Caulking should be used to ensure a leak proof fitting. Use the plastic clips (10323) wherever needed to secure lead wire to vehicle.

## WALL JACK INSTALLATION

For either model the location of the wall jacks will depend upon the co-ax cable entry position and in the case of the 12V wall jack, the location of the RV 12 volt supply leads in the wall.

It is advisable to disconnect the RV 12 volt supply while wiring in the wall jack assy. (12640). MAKE SURE THAT POLARITY IS CORRECT.

Use 300 ohm lead wire to connect male plug (10658) to TV set antenna terminals direct or via UHF/VHF splitter such as the Braund type SC.1.

Red lamp should glow when wall jack is switched on. Turn antenna for best reception.

Model 12539 has a transistor amplifier housed in the antenna head (12585). The wall jack assy. (12640) separates the TV signals from the 12 volt supply, and provides an outlet for one remote wall jack (12637) obtainable from Braund Mfg. Co.

**GALAXY**
MODEL 12539
(with Amplifier)

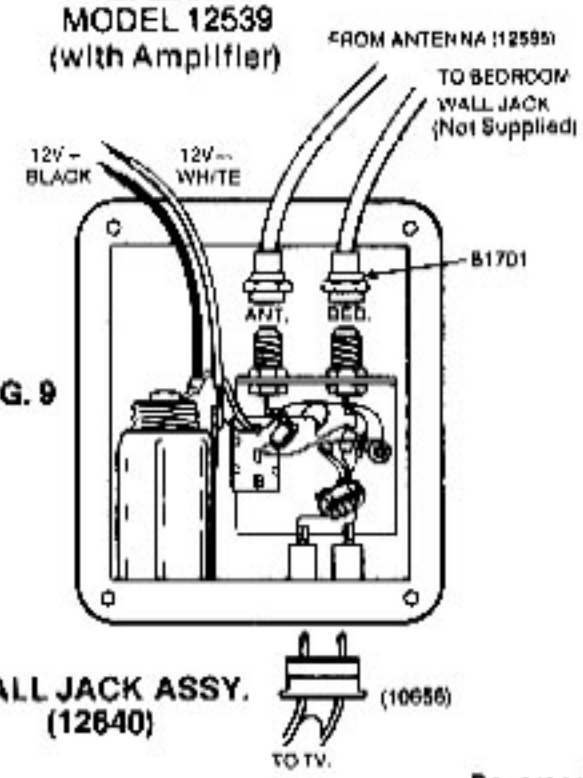



FIG. 9

**WALL JACK ASSY. (12640)**

**GALAXY**
MODEL 12538
(No Amplifier)

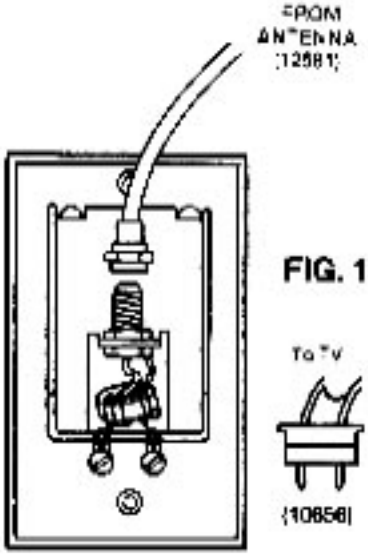
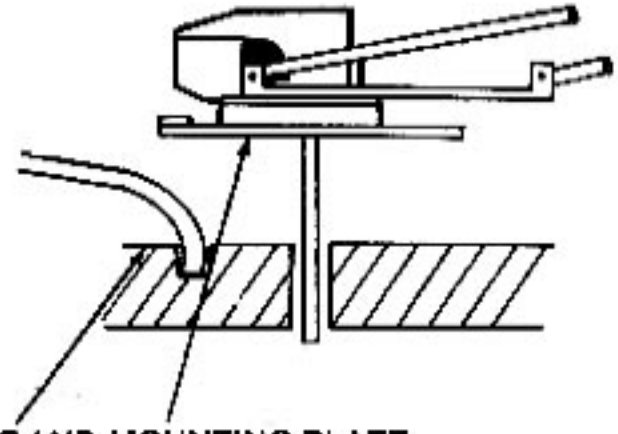


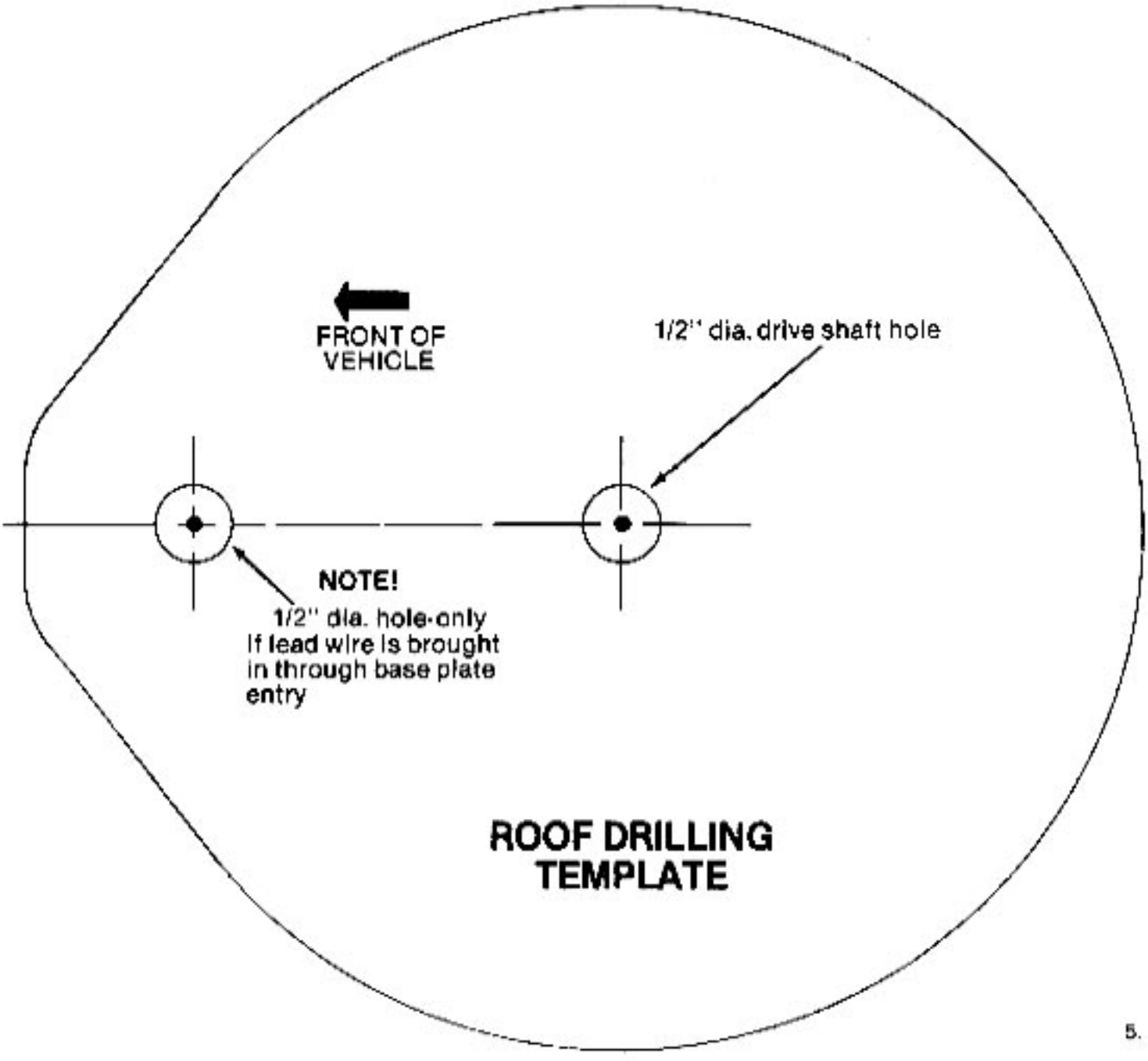

FIG. 10

**WALL JACK (12637)**

Reversed polarity on the black and white leads will damage the Galaxy and/or your TV set and void the warranty.



CAULK ROOF AND MOUNTING PLATE
LIBERALLY. PARTICULARLY AROUND LEAD-IN ENTRY



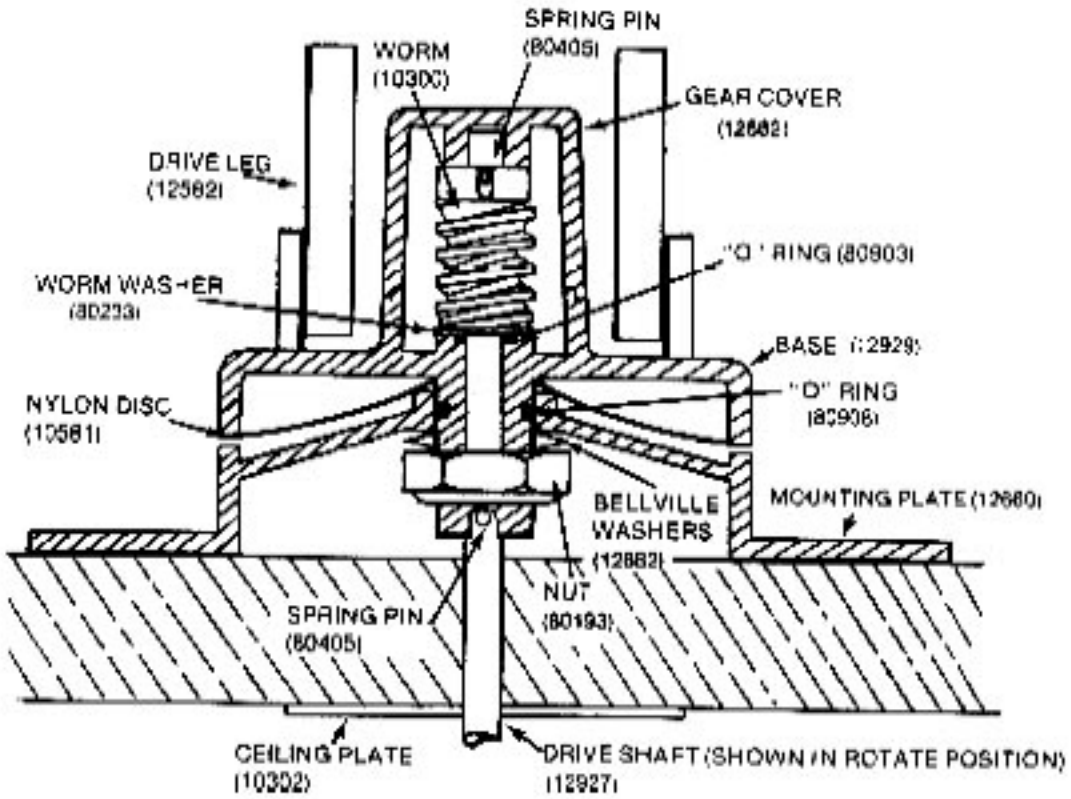

**ROOF DRILLING TEMPLATE**

# GALAXY PARTS LIST

| Part No. | Description |
|---|---|
| 10300 | Worm |
| 10302 | Ceiling Plate |
| 10323 | E 4 Cable Clips |
| 10579 | Lead-In-Plate |
| 10580 | Lead-In Gasket |
| 10581 | Nylon Disc. |
| 11078 | Side Closure |
| 11079 | Rotating Closure |
| 11080 | Spacer |
| 12394 | Drive Axle |
| 12395 | Idler Axle |
| 12581 | Head |
| 12582 | Drive Leg |
| 12583 | Idler Leg |
| 12585 | Head (with Amp.) |
| 12608 | Coax Assembly |
| 12611 | Crank Handle Assembly |
| 12624 | Drive Pin |
| 12625 | Worm Gear |
| 12637 | Wall Jack |
| 12640 | Wall Jack Assy. |
| 12660 | Mounting Plate |
| 12662 | Cover |
| 12682 | Bellville Washer |

| Part No. | Description |
|---|---|
| 12745 | Travel Support |
| 12927 | Drive Shaft |
| 12929 | Base |
| 80004 | Lock Ring 5/16 (1) |
| 80005 | Lock Ring 1/4 (1) |
| 80193 | Nut |
| 80233 | Worm Washer |
| 80334 | Rivet 3/16 x 1 1/8 |
| 80405 | Spring Pin |
| 80521 | Bushing |
| 80600 | Hex Key |
| 80903 | "O" Ring 5/16 |
| 80908 | "O" Ring 3/4 |
| 81000 | Screw 6 x 3/4 for 12660 and 10579 |
| 81007 | Screw 4 x 3/8 for 10302 |
| 81008 | Screw 10 x 3/4 for 11698 |
| 81033 | Screw 8 x 1/2" for 12662 |
| 81701 | Coax Connector |
| 82307 | Spacer (2) |

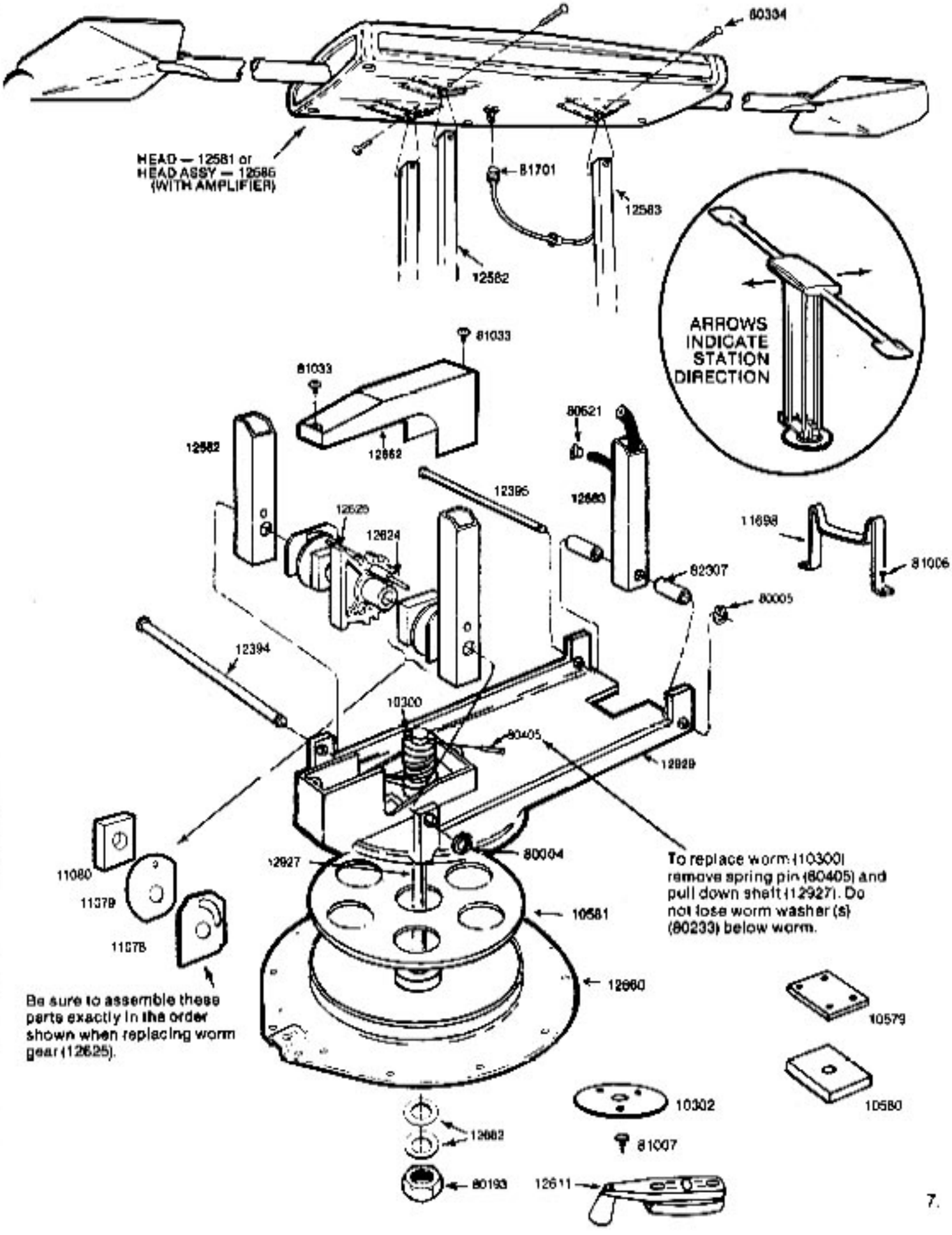
If replacement parts should be required, you may order them from your dealer or direct from the Braund Mfg. Co., 730 E. Michigan Ave., Battle Creek, Michigan 49016. Please use part number, part description, and "Galaxy".




**MAINTENANCE**

The gears (10300 & 12625) are well lubricated during manufacture. We suggest that once a year the gear cover (12662) is raised by removing the two screws (81033) to check the supply of high melting point grease similar to Lubriplate 630. Application of a spray lubricant to all exposed bearing surfaces approximately twice yearly is also recommended.

# EXPLODED VIEW OF GALAXY ANTENNA



## PROBLEMS & REMEDIES

### DIFFICULT TO PUSH HANDLE UP & DOWN

(a) After raising the antenna always "back off" the crank handle in the opposite direction about half a turn before pushing up to the rotate position.

(b) It is very important that there is no sideways pressure on the shaft when the ceiling plate (10302) is fitted. To check this raise antenna as in Para. 10, Page 3, remove the ceiling plate and refit crank handle - the shaft should move up and down with little effort. Before refitting ceiling plate, enlarge the ceiling hole so that the plate will fit flush to ceiling without putting any stress on the shaft. Also check that glass fiber insulation is not fouling the shaft.

(c) The shaft may have been cut too short during installation thus preventing up and down movement. The only remedy is to replace the shaft. Remove pin (80405) which passes through the slot in top of worm (10300). Shaft (12927) may then be withdrawn downward after removing the ceiling plate (10302). The new shaft should be checked for "burrs" and coated with silicone grease before fitting. Use a twisting motion when inserting the new shaft to avoid damage to the "O" ring (80903) positioned just below the worm (10300).

### DIFFICULT TO ROTATE

(a) The most common cause is excessive caulking around the base and mounting plate causing binding. In extreme cases it will be impossible to turn the antenna usually resulting in breakage of the crank handle (12611). Check that the bearing surfaces of the base (12929) and mounting plate (12660) are clear of caulking or sealing material.

(b) If the co-ax cable has been routed incorrectly (see FIG. 7, page 3) it may prevent full rotation, or if too long the loop may catch on some other roof top device such as a vent.

(c) The antenna may have been installed too close to a vent or air conditioner with insufficient clearance for the base to rotate fully.

### ANTENNA WILL NOT RAISE

(a) Usually caused by a stripped worm gear (12625) and/or worm (10300). Gears are usually damaged by (1) trying to raise the antenna by turning the crank in the wrong direction. (2) With the antenna raised a heavy blow on the antenna head from a tree limb will strip either or both gears. For this reason we do advise against driving with the antenna in a raised position. A new worm gear (12625) is easily replaced after removing the gear cover (12662) and withdrawing the drive axle (12394). The worm (10300) may be replaced by removing pin (80405) at top of worm and then partly withdrawing the shaft (12927) downwards until it is clear of the worm. Damaged worm may then be removed and replaced - caution - do not lose the worm washer (80233) which is positioned just below the worm.

All of the above work may be carried out without removing the unit from the vehicle. However, any damage to the base (12929) or plate (12660) will require removal from the roof. Details of damage repairs may be obtained by request from our customer service dept. at address below.

### RECEPTION

Due to the various locations used by recreational vehicles, reception will not be so consistent as at a fixed location because of the large variation in the terrain encountered throughout the country. In general, TV/FM signals (particularly UHF) travel roughly in a straight line so hills or mountains etc. between your vehicle and the transmitting station may severely reduce the amount of signal reaching your antenna.

If you are using the Galaxy Model 12539, make sure that the ON/OFF switch on the wall jack assy. (12640) is in the "ON" position when watching TV.

### TROUBLE SHOOTING (MODEL 12539)

1. Wall jack switch OFF. Unscrew co-ax connector (81701) from antenna head assy. (12585).
2. Wall jack switch ON. Check with voltmeter that there is 12 volts between inner wire (+) and outer shell (-) of co-ax connector (81701). If polarity is reversed then the amplifier in the antenna head assy. may be damaged.
3. If 12 volts is missing remove co-ax cable connector from wall jack and check continuity of cable.
4. If cable is OK then check 12 volt supply to wall jack. If OK then wall jack may be defective.

Make sure that all connections between wall jack and TV set are good. Contact our Customer Service Dept. at address below if further assistance is required.

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